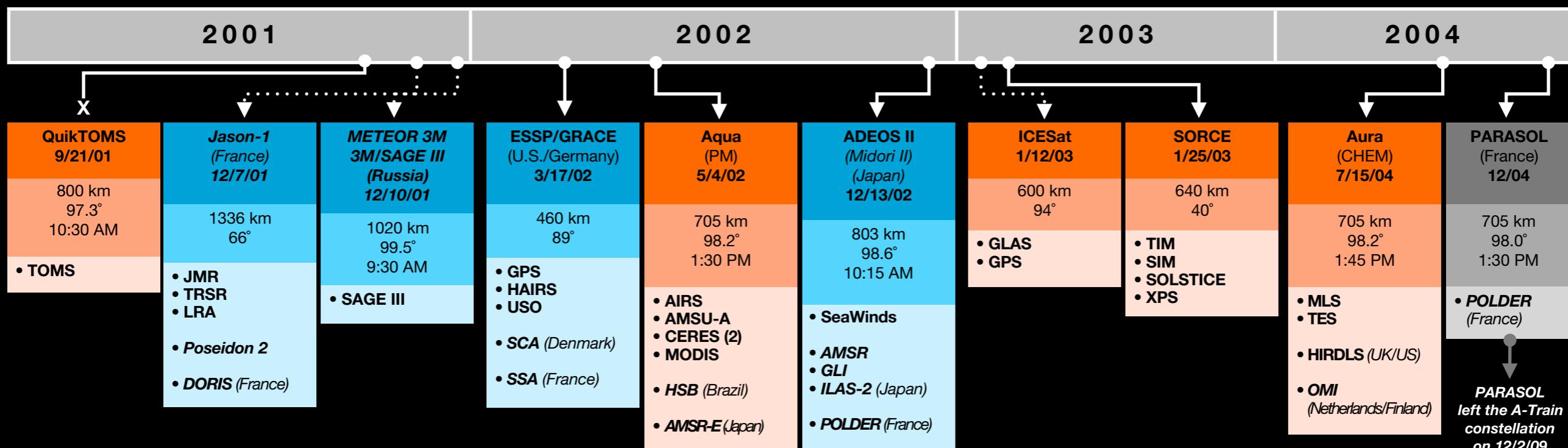
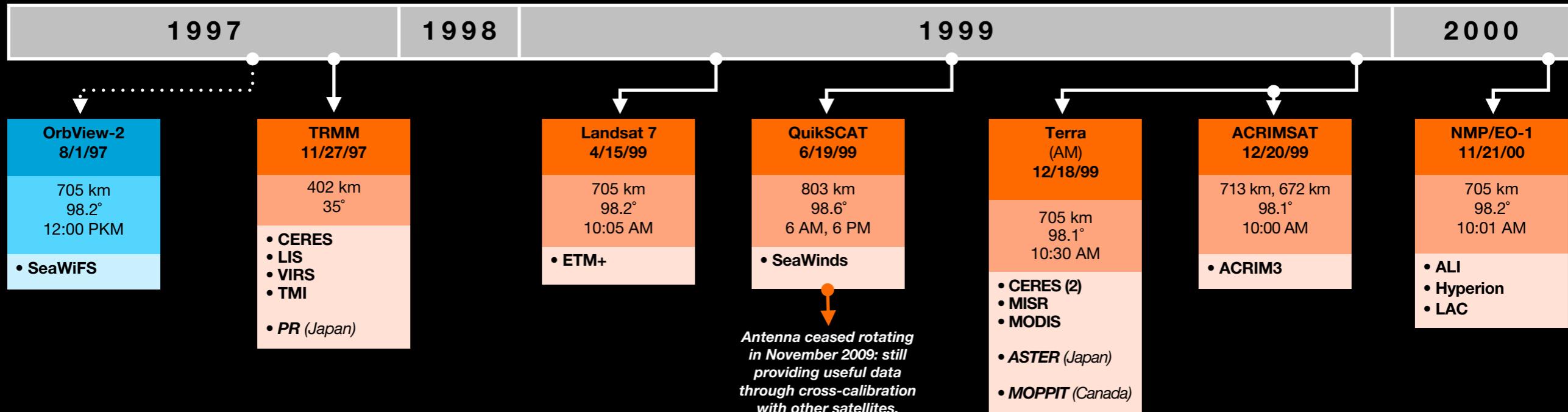


Earth Science Mission Profile 1997 - 2004

Revised:
July 1, 2013



Click the mission name below for a detailed description.



Spacecraft not provided by NASA

No NASA contribution (A-Train constellation member)

Items in italics not funded by NASA.

¹ OrbView -2 is not provided or operated by NASA but is a data buy.

Currently
in Operation

Future
Mission

Launch
Failure

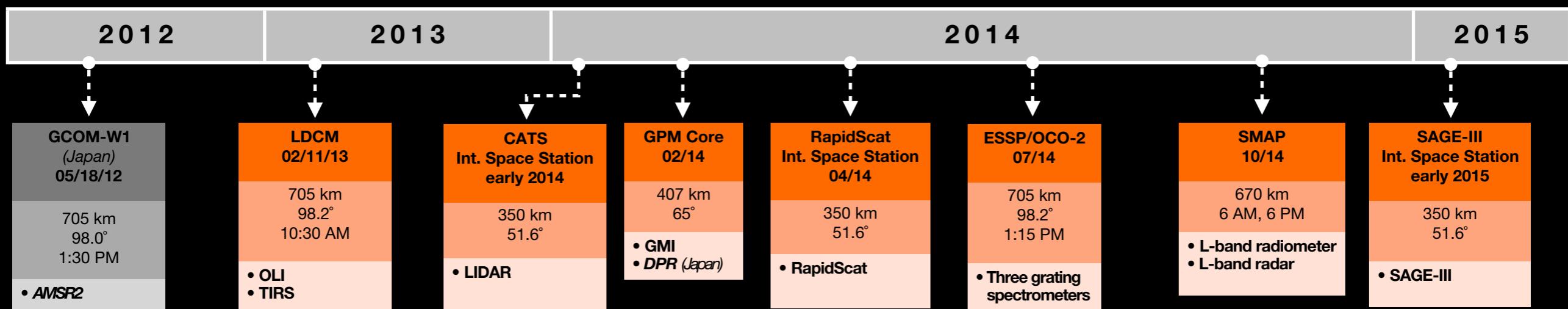
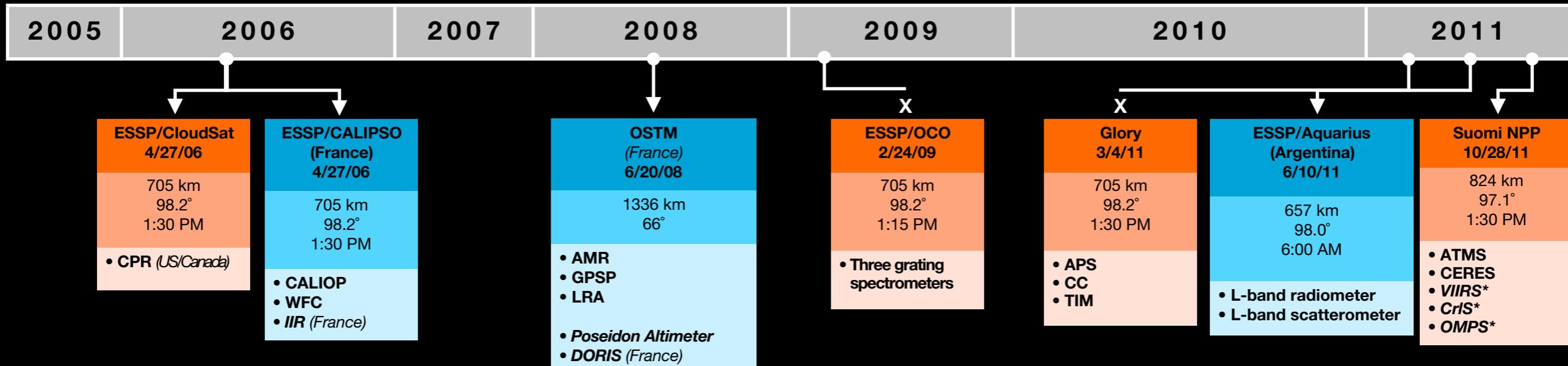
No Longer in Science
Operation

Earth Science Mission Profile 2005 - 2015

Revised:
September 5, 2013



Click the mission name below for a detailed description.



Spacecraft not provided by NASA

No NASA contribution (A-Train constellation member)

Items in italics not funded by NASA.

* Instrument provided jointly with the Integrated Program Office (IPO)

Currently
in Operation

Future
Mission

Launch
Failure

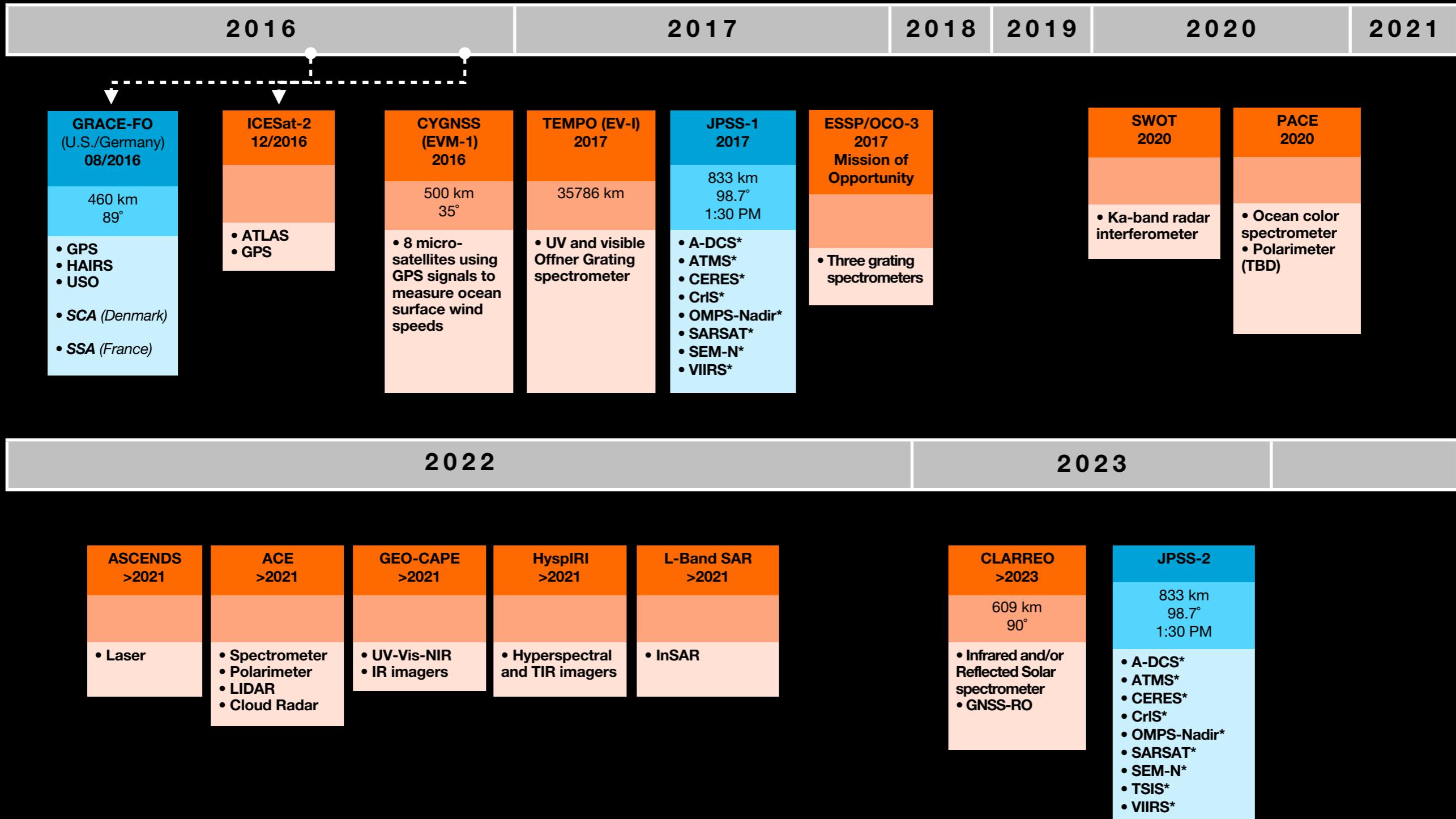
No Longer in Science
Operation

Earth Science Mission Profile 2016 - 2023

Revised:
September 11, 2013



Click the mission name below for a detailed description.

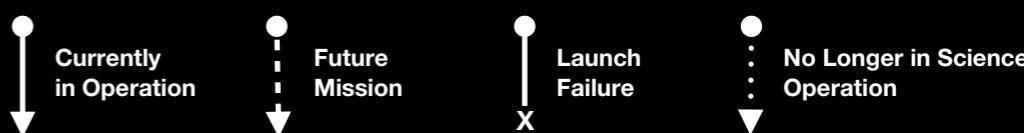


Spacecraft not provided by NASA

No NASA contribution (A-Train constellation member)

Items in italics not funded by NASA.

* Instrument provided jointly with the Integrated Program Office (IPO)



Mission Profile 1997 - 2004 • Acronym List

ACRIMSAT

- ACRIM3 - Active Cavity Radiometer Irradiance Monitor

ADEOS II (Midori II)

- AMSR - Advanced Microwave Scanning Radiometer
- GLI - Global Imager
- ILAS-2 - Improved Limb Atmospheric Spectrometer 2
- POLDER - Polarization and Directionality of the Earth's Reflectances

Aqua

- AIRS - Atmospheric Infrared Sounder
- AMSU-A - Advanced Microwave Sounding Unit-A
- CERES - Clouds and the Earth's Radiant Energy System
- MODIS - Moderate Resolution Imaging Spectroradiometer
- HSB - Humidity Sounder for Brazil
- AMSR-E - Advanced Microwave Scanning Radiometer for EOS

Aura

- HIRDLS - High Resolution Dynamics Limb Sounder
- MLS - Microwave Limb Sounder
- OMI - Ozone Monitoring Instrument
- TES - Tropospheric Emission Spectrometer

ESSP/GRACE

Earth System Science Pathfinder/Gravity Recovery And Climate Experiment

- GPS - Black-Jack Global Positioning System Receiver
- HAIRS - High-Accuracy Inter-satellite Ranging System
- SCA - Star Camera Assembly
- SSA - SuperStar Accelerometer
- USO - Ultra Stable Oscillator

ICESat

- GLAS - Geoscience Laser Altimeter System
- GPS - Global Positioning System

Jason-1

- JMR - Jason Microwave Radiometer
- TRSR - Turbo Rogue Space Receiver
- LRA - Laser Retroreflector Array
- DORIS - Doppler Orbitography and Radiopositioning Integrated by Satellite
- Poseidon-2 Altimeter

Landsat 7

- ETM+ - Enhanced Thematic Mapper Plus

METEOR 3M/SAGE III

- SAGE III - Stratospheric Aerosol and Gas Experiment III

NMP/EO-1

New Millennium Program/Earth Observing-1

- ALI - Advanced Land Imager
- Hyperion - Hyperspectral Instrument
- LAC - Linear Etalon Imaging Spectral Array (LEISA) Atmospheric Corrector

OrbView-2

- SeaWiFS - Sea-viewing Wide Field-of-view Sensor

PARASOL

Polarization & Anisotropy of Reflectances for Atmospheric Sciences coupled with Observations for a Lidar

- POLDER - Polarization and Directionality of the Earth's Reflectance

QuikScat

Quick Scatterometer

- SeaWinds

QuikTOMS

- TOMS - Total Ozone Mapping Spectrometer

SORCE

Solar Radiation and Climate Experiment

- TIM - Total Irradiance Monitor
- SIM - Spectral Irradiance Monitor
- SOLSTICE - Solar Stellar Irradiance Comparison Experiment
- XPS - XUV Photometer System

Terra

- ASTER - Advanced Spaceborne Thermal Emission and Reflection Radiometer
- CERES - Clouds and the Earth's Radiant Energy System
- MISR - Multi-angle Imaging Spectroradiometer
- MODIS - Moderate Resolution Imaging Spectroradiometer
- MOPITT - Measurements of Pollution in the Troposphere

TRMM

Tropical Rainfall Measuring Mission

- CERES - Clouds and the Earth's Radiant Energy System
- LIS - Lightning Imaging Sensor
- VIRS - Visible and Infrared Scanner
- TMI - TRMM Microwave Imager
- PR - Precipitation Radar

Mission Profile 2005 - 2015 • Acronym List

CATS

Cloud-Aerosol Transport System

- LIDAR

ESSP/Aquarius

- LBR - L-Band Radiometer
- LBS - L-Band Scatterometer

ESSP/CALIPSO

Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations

- CALIOP - Cloud Aerosol Lidar with Orthogonal Polarization
- IIR - Imaging Infrared Radiometer
- WFC - Wide Field Camera

ESSP/Cloudsat

- CPR - Cloud Profiling Radar

ESSP/OCO-2 (also ESSP/OCO)

Orbiting Carbon Observatory

- Three high-resolution grating spectrometers

GCOM-W1

The Global Change Observation Mission-Water

- AMSR2 - Advanced Microwave Scanning Radiometer

Glory

- APS - Aerosol Polarimetry Sensor
- CC - Cloud Camera
- TIM - Total Irradiance Monitor

GPM Core Observatory

Global Precipitation Measurement

- DPR - Dual Frequency Precipitation Radar
- GMI - GPM Microwave Imager

LDCM

Landsat Data Continuity Mission

- OLI - Operational Land Imager
- TIRS - Thermal Infrared Sensor

OSTM

Ocean Surface Topography Mission

- DORIS - Doppler Orbitography and Radio-positioning Integrated by Satellite
- TRSR - Turbo Rogue Space Receiver
- LRA - Laser Retroreflector Array
- Poseidon-3 Altimeter
- AMR - Advanced Microwave Radiometer
- GPSP - Global Positioning System Payload

RapidScat (International Space Station)

- Rapid Scatterometer

Suomi NPP

Suomi National Polar-orbiting Partnership

- ATMS - Advanced Technology Microwave Sounder
- CERES - Clouds and the Earth's Radiant Energy System
- CrIS - Cross-Track Infrared Sounder
- OMPS-Nadir - Ozone Mapping and Profiler Suite
- VIIRS - Visible/Infrared Imager/Radiometer Suite

SAGE-III (International Space Station)

- Stratospheric Aerosol and Gas Experiment - III

SMAP

Soil Moisture Active Passive

- L-Band Radiometer
- L-Band Radar

Mission Profile 2016 - 2023 • Acronym List

ACE

Aerosols-Clouds-Ecosystems

- Spectrometer
- Polarimeter
- LIDAR
- Cloud Radar

ASCENDS

Active Sensing of CO₂ Emissions over Nights, Days, and Seasons

- Laser

CLARREO

Climate Absolute Radiance & Refractivity Observatory

- Infrared Spectrometer
- Three Reflected Solar Spectrometers
- GNSS-RO - Global Navigation Satellite Systems - Radio Occultation System

CYGNSS (EV-2)

Cyclone Global Navigation Satellite System (Earth Venture-2)

- 8 micro-satellites using GPS signals to measure ocean surface wind speeds

ESSP/OCO-3 (also ESSP/OCO)

Orbiting Carbon Observatory

- Three high-resolution grating spectrometers

GEO-CAPE

- Ultraviolet-visible-near-infrared
- Infrared imagers

GRACE-FO

Gravity Recovery And Climate Experiment-Follow-on

- GPS - Black-Jack Global Positioning System Receiver
- HAIRS - High-Accuracy Inter-satellite Ranging System
- SCA - Star Camera Assembly
- SSA - SuperStar Accelerometer
- USO - Ultra Stable Oscillator

HyspIRI

- Hyperspectral and thermal infrared imagers

ICESat-2

- ATLAS - Advanced Topographic Laser Altimeter System
- GPS - Global Positioning System

L-Band SAR

- InSAR - Interferometric Synthetic Aperture RADAR (Radio Detection and Ranging)

JPSS 1-2

Joint Polar Satellite System

- ADCS-SARSAT - Advanced Data Collection System/Search and Rescue Satellite-Aided Tracking
- ATMS - Advanced Technology Microwave Sounder
- CERES - Clouds and the Earth's Radiant Energy System
- CrIS - Cross-Track Infrared Sounder
- MIS - Microwave Imager/Sounder
- OMPS-Nadir - Ozone Mapping and Profiler Suite
- SARSAT - Search and Rescue Satellite-Aided Tracking
- SEM-N - Space Environment Monitor-NPOESS
- TSIS - Total and Spectral Solar Irradiance Sensor
- VIIRS - Visible/Infrared Imager/Radiometer Suite

PACE (Pre-ACE)

Pre-Aerosol, Clouds, and ocean Ecosystem

- Ocean color/aerosol spectrometer
- Polarimeter (International partnership TBD)

SWOT

Surface Water Ocean Topography

- Ka-band radar interferometer

TEMPO

Tropospheric Emissions: Monitoring of Pollution

- UV and Visible Offner Grating Spectrometer